

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/11/99

Date Received: 10/07/99

Project: Metro-Self Monitor, PO# M62766

Date Extracted: 10/08/99

Date Analyzed: 10/08/99

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M62766	0.23	0.30	0.27	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS  
FOR TOTAL METALS BY  
INDUCTIVELY COUPLED PLASMA (ICP)  
(METHOD 6010)**

Laboratory Code: 909136-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	0.27	0.26	4	0-20
Copper	ug/L (ppb)	0.36	0.33	9	0-20
Nickel	ug/L (ppb)	0.31	0.32	3	0-20
Zinc	ug/L (ppb)	0.15	0.09	50 a	0-20

Laboratory Code: 909136-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	ug/L (ppb)	5	5.5	106	102	80-120	4
Copper	ug/L (ppb)	5	5.5	102	99	80-120	3
Nickel	ug/L (ppb)	10	114	110	119	80-120	9
Zinc	ug/L (ppb)	5	6.6	129 vo	137 vo	80-120	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	ug/L (ppb)	5	109	109	80-120	0
Copper	ug/L (ppb)	5	108	108	80-120	0
Nickel	ug/L (ppb)	10	115	116	80-120	1
Zinc	ug/L (ppb)	5	117	120	80-120	3

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

vo - The value reported fell outside the control limits established for this analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Jensen, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

October 11, 1999

DUPLICATE COPY

INVOICE #99ACU1011-2

Accounts Payable  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

RE: Project Metro-Self Monitor, PO# M62766: Results of testing requested  
by Gerald Thompson for material submitted on October 7, 1999.

1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$80 per sample

\$ 80.00

Amount Due .....

\$ 80.00

PLEASE NOTE: As a convenience for our valued clients, we can accept credit cards (VISA, MasterCard or government purchasing cards) for payment on our invoices. Please contact our office if you would like to take advantage of this service.

FEDERAL TAX ID (b) (6)

(DH 10/7/99 AI)

910045



*Send Report To:*

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7238	Metro Self Monitor	in 62766

SAMPLERS (signature)	PROJECT LOCATION
	3200 6th Ave S.

REMARKS	SAMPLE DISPOSAL INFORMATION
Phase with ventals	<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald A. Thompson	Acw.	10/7/99	12:51 PM
Received by: 	S. Chorn	F & B, Inc.	10/7/99	12:55
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

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October 11, 1999

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 7, 1999 from your Metro-Self Monitor, PO# M62766 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Dianne C. Hurt  
Project Manager

Enclosures  
ACU1011R.DOC